

IN THE CLAIMS

Kindly amend the claims as shown in the following listing of all claims:

1. – 41. (canceled)

42. (new) A distributor device for use in an aluminium casting operation to direct the flow of molten aluminium into a mould, the distributor device comprising: a rigid, substantially bowl-shaped receptacle of a refractory material having a base member and a peripheral wall that extends upwards from the base member and includes two side wall members and two end wall members, said receptacle having an inlet opening towards the upper end thereof and at least one outlet opening in each of said end wall members towards the base member, the device being constructed and arranged such that in use, molten aluminium poured into the distributor device through the inlet opening is redirected by the distributor device and flows substantially horizontally outwards into the mould through said outlet openings; wherein the upper surface of the base member is inclined downwards towards the outlet openings.

43. (new) The distributor device according to claim 42, wherein each outlet opening is arranged such that the upper surface of the base member and a lower boundary of the outlet opening is substantially flush such that the upper surface of the base member extends continuously through each end wall.

44. (new) The distributor device according to claim 42, wherein the base angle "A" is greater than zero and less than ten degrees.

45. (new) The distributor device according to claim 42, wherein the separation of the side wall members increases towards ends of the side wall members.

46. (new) The distributor device according to claim 45, wherein the side wall members are curved.
47. (new) The distributor device according to claim 42, wherein the base member includes a raised flow deflector.
48. (new) The distributor device according to claim 42, wherein the peripheral wall is inclined outwards.
49. (new) The distributor device according to claim 42, including a heating element for pre-heating the device.
50. (new) The distributor device according to claim 42, including a support structure.
51. (new) The distributor device according to claim 42, including a porous element constructed and arranged such that, in use, molten aluminium poured into the distributor device flows through said porous element.
52. (new) The distributor device according to claim 51, in which the porous element includes a substantially bowl-shaped mesh of woven material that fits into and is supported by said receptacle, the arrangement being such that molten aluminium poured into the distributor device through the inlet opening flows through the mesh of woven material before exiting through said outlet openings.
53. (new) The distributor device according to claim 51, wherein the porous element includes a mesh of coated glass fibres.
54. (new) The distributor device according to claim 51, wherein the porous element includes a support frame that, in use, engages and is supported by the receptacle.

55. (new) An aluminium casting installation including a mould, a delivery device for delivering molten aluminium into the mould and a distributor device according to claim 42, the distributor device being mounted below the delivery device and above the mould, the installation being constructed and arranged such that, in use, molten aluminium is poured from the delivery device into the mould through the distributor device.

56. (new) The aluminium casting installation according to claim 55, wherein the distributor device is positioned so that, during pouring, it is partially immersed in the liquid metal in the mould with said outlet openings below the surface of the liquid metal.

57. (new) A distributor device for use in an aluminium casting operation to direct the flow of molten aluminium into a mould, the distributor device comprising: a rigid, substantially bowl-shaped receptacle of a refractory material having a base member and a peripheral wall that extends upwards from the base member and includes two side wall members and two end wall members, said receptacle having an inlet opening towards the upper end thereof and at least one outlet opening in each of said end wall members towards the base member, the device being constructed and arranged such that, in use, molten aluminium poured into the distributor device through the inlet opening is redirected by the distributor device and flows outwards into the mould through said outlet openings; wherein the separation of the side wall members increases towards ends of the side wall members.

58. (new) The distributor device according to claim 57, wherein the side wall members are curved.

59. (new) The distributor device according to claim 57, wherein the base member includes a raised flow deflector.

60. (new) The distributor device according to claim 57, wherein the upper surface of the base member is inclined downwards towards the outlet openings.

61. (new) The distributor device according to claim 57, further comprising a porous element having a substantially bowl-shaped mesh of woven material that fits into and is supported by said receptacle, the arrangement being such that molten aluminium poured into the distributor device through the inlet opening flows through the mesh of woven material before exiting through the outlet openings.

62. (new) A distributor device for use in an aluminium casting operation to direct the flow of molten aluminium into a mould, the distributor device comprising: a rigid, substantially bowl-shaped receptacle of a refractory material having a base member and a peripheral wall that extends upwards from the base member and includes two side wall members and two end wall members, said receptacle having an inlet opening towards the upper end thereof and at least one outlet opening in each of said end wall members towards the base member, the device being constructed and arranged such that in use, molten aluminium poured into the distributor device through the inlet opening is redirected by the distributor device and flows substantially horizontally outwards into the mould through said outlet openings; wherein the base member includes a raised flow deflector that is substantially hemispherical with a flat top.

63. (new) The distributor device according to claim 62, wherein the separation of the side wall members increases towards ends of the side wall members.

64. (new) The distributor device according to claim 63, wherein the side wall members are curved.

65. (new) The distributor device according to claim 62, wherein the upper surface of the base member is inclined downwards towards the outlet openings.

66. (new) The distributor device according to claim 62, further comprising a porous element having a substantially bowl-shaped mesh of woven material that fits into and is supported by said receptacle, the arrangement being such that molten aluminium poured into the distributor device through the inlet opening flows through the mesh of woven material before exiting through said outlet openings.

67. (new) The distributor according to claim 62, wherein the raised flow deflector has a radius of curvature in the range 20mm to 60mm.

68. (new) The distributor according to claim 67, wherein the raised flow deflector has a radius of curvature of approximately 40mm.

69. (new) The distributor according to claim 62, wherein the flat top has a diameter in the range 10mm to 50mm.

70. (new) The distributor according to claim 69, wherein the flat top has a diameter of approximately 30mm.